design case study

completely regrade the land allowed Smyers and Andrews to control the water so there won't be too much or too little water at any time.

"You have to control the grading so that in the wet season the plants won't be inundated with too much water, and in the dry season, there's not so much water that the wading birds can't forage for fish," Andrews says.

Walton is grading three zones: a deep zone, an intermediate zone and an upland nativegrass zone, all of which will interact with the golf course.

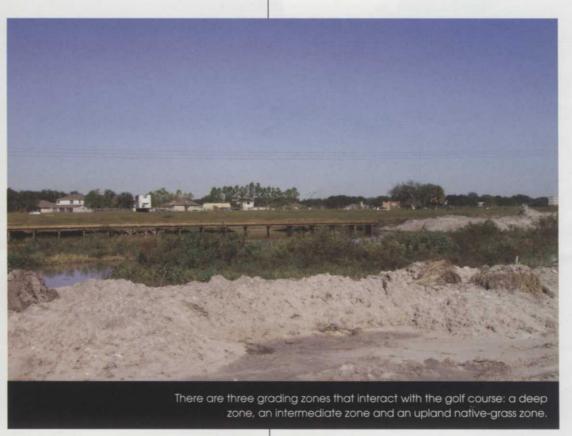
"We're creating everything from upland habitat and live oaks to the buffer zones with native grasses bordering wetland areas," Andrews says.

In effect, they're creating a 165-acre wildlife corridor that will include 79 acres of recreated wetlands and 64 acres of upland native plantings in trees and grasses. Upland materials range from a variety of native trees to grasses and shrubs, such as slash pine, sabal palm, cord grass and paspalum.

There also will be parks interspersed throughout the property and common areas around lakes and wetlands that are important amenities to people who will be living there, according to Lakeland planning manager Bruce Kistler. The new BridgeWater wetlands also will serve to handle runoff from the nearby interstate and an abutting office park. GCN

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Career development

Forging a solid bond

SUPERINTENDENTS AND OWNERS DEVELOP CLOSE RELATIONSHIPS FOR SMOOTHER-RUN OPERATIONS

by JOHN

T t's very common for people to develop close relationships with others to grow personally and professionally. But WALSH what might be less common are golf course superintendents who have close, working relationships with the owners of the courses they maintain. These types of relationships are cherished by superintendents and most likely won't be developed again during their careers.

One of a kind

More than a year and a half ago, Curtis James left his job as golf course superintendent of the East Course at Merion Golf Club in Ardmore, Pa., to work for Jim

Scott, owner and developer of Olde Stone Golf Club in Bowling Green, Ky.

"It's been a dream of Mr. Scott's to build a golf course and community because he wanted to give back to the city of Bowling Green," James says.

James first met the 67-year-old Scott through the Arthur Hills design team, who designed the Olde Stone course. James describes Scott, who owns a construction and distribution business, as a loyal Southern gentleman who works every day and drives beat-up, old pickup truck.

"The first time I met Mr. Scott, we hit it off," James says. "He saw in me what he was like - young, aggressive and likes to work.

I taught him how to build a golf course, and he taught me about building roads and moving dirt. He'll put forth the resources if you work and prove you're worthy. He's given me full range and doesn't micromanage me. I'm not reporting to a board - I report to him only. Sometimes people think working for one owner is a nightmare, but as long as you do what you were hired to do, you'll have a great working relationship."

Golf course superintendents always will have unexpected circumstances arise when growing-in a new course, James explains, and Scott understands that because he bids jobs and has maintained budgets his entire career.



An example of the unexpected occurred when James started on the job and realized the irrigation system was set up for warmseason grass. Two heads at every station – one to water the rough and one to water the fairway – were needed to water the bluegrass and bentgrass, and it was going to cost an additional half-million dollars, James says. Scott approved the irrigation change.

"If you can show the reasoning behind your theories, you can get through to owners," James says. "Mr. Scott is all about having the best course."

Professionally, James says his relationship with Scott has improved his communication skills. Personally, they're friends.

"We play golf together," he says. "I have no family down here, and he kind of adopted me. I have gained a lot of respect for him. He can be doing anything he wants, and he's out here spraying weeds. He wants me to be happy and has taught me good values that I didn't have before I started working for him. This is probably only time in my career I will have a relationship like this."

Two peas in a pod

Much like James, Chris Taylor, director of golf/operations at Charwood Country Club in West Columbia, N.C., has a similar relationship with his boss/course owner. Taylor has worked at the semiprivate, 27hole facility for 11 years. During that time, Taylor became a golf pro while working as a superintendent.

Right before working at Charwood, Taylor left a job as golf course superintendent to work for a fertilizer company, but he didn't like it. Taylor heard about an opportunity at Charwood through the grapevine, so he called Rock Lucas, who, at the time, was the facility's owner, superintendent, golf pro and manager.

"Rock had been running the course and was the superintendent and golf pro as well, so we hit it off," Taylor says.

"When Chris came into the picture, I wasn't looking for anybody," says Lucas, owner and managing partner of Charwood. "I had a good assistant in the shop. But a sales rep told me there was a good guy that I should talk to to help me out because he thought I was stretched too thin. I heard so many good things about him – his character, personality, professionalism, manners and work ethic. So Chris and I had lunch. He's a genuine person, and I could tell that from the moment I met him. I don't hire skills, I hire personality and develop someone's skills. I didn't really give him a job – he just worked out. It evolved, and he went from a guy with no title to director of golf. He runs the business."

Taylor says Lucas was looking for someone to share the load of running the operations and eventually run the entire business. He says his dual certification of Class A golf course superintendent and golf pro helped him get the job.

"Rock is the type of fellow who came in with me early and worked on cart paths, trees, and building greens and tees," he says. "We bonded. He's a very good businessman and likes working with numbers. I was more oriented toward working with a crew. We became friends. Rock wanted to groom me to the point I'm at today. I basically manage the place. Rock is still



career development

The close relationship between Jack Vickers, green chairman and part owner of Castle Pines Golf Club, and Marshall Fearing, director of grounds, makes Fearing's job easier because Fearing knows exactly what Vickers wants. Photo: Castle Pines Golf Club

involved. We talk regularly, but not as often as it used to be. We talk about problems as well as successes."

The relationship between the two, who are close in age, grew but changed.

"We're still close, but we don't work side by side anymore," Lucas says. "I got into real estate development and spend most of my time doing that. I can do that because of Chris and his staff. I'm still there every day, but I'm working with real estate. I still meet with Chris to see where we're going. I have talked to people whose golf course suffered because they were gone. The ship was still sailing, so to say, but it was off course. Our course is still on course because of Chris.

"Chris is a good people person," he adds. "He does an excellent job working with customers while growing grass. He's excellent at dealing with staff and golfers, and that allows me to not be needed around all the time. Chris also knows his limitations and contacts me before things get out of hand."

Lucas says the two are friends and used to do a lot together outside of work but as their families have grown older, they're at different stages in parenthood.

Taylor says the relationship he has with Lucas has helped him immensely.

"Rock is active in the owners association, and I've followed along on his coattails and met a lot of people," he says. "Educationally we've done a lot together. We've gone to seminars, PGA continuing education programs, superintendent meetings, USGA Green Section meetings. We've always tried to improve and learn new things not because we have to but because we want to."

Communication between Taylor and Lucas is open and frequent.

"We talk about everything," Taylor says. "If he or I wanted to do something, we'll bounce it off each other. We'll always crunch the numbers and hash the idea out together. We make every decision together. We have made bad decisions, but the major decisions have been good. We're very proactive and staying ahead of the curve to stay in the black every month."

With such a strong relationship, one wonders if that rubs off on others.

"People in our area question Rock about how we operate," Taylor says. "We are very visible. People see us together. I'm sure people have admired our relationship, and hopefully we've helped people."

A sound understanding

Out in Colorado, another close working relationship has developed between

career development

a superintendent and the man in charge. Marshall Fearing came to Castle Pines Golf Club in 1986 after being offered an assistant golf course superintendent position and, in 1987, became superintendent. Currently, he's director of grounds at the private 18hole club.

Castle Pines was started in 1979 by 13 people, one of whom is Jack Vickers, who is the one and only grounds chairman and the dictator of course conditions at the club, which opened in 1981.

Fearing's relationship with Vickers started shortly after he started. After the director of agronomy left in 1990, Vickers and Fearing developed a closer relationship.

"Mr. Vickers is demanding but has a good understanding of golf," Fearing says. "He's been around golf his entire life. He understands going from A to B and knows the challenges we have to go through to get where he wants us to be."

An example of this understanding is trying to have *Poa annua*-free greens and tees and the challenges related to that goal.

The relationship between Fearing and Vickers makes Fearing's job easier because he knows what Vickers wants.

"I know his pet peeves and what drive him nuts," Fearing says. "It's clear to us what he wants. He's a reasonable person. He realizes the limitations of what we can and can't do. I'm lucky and fortunate that I decided to come and work at Castle Pines. People in key positions have been here 20 years, and that speaks well of Mr. Vickers."

Vickers is a good listener and analytical person, according to Fearing.

"Being a member of a number of clubs through the country, including Augusta National, he see things he likes and can bring back some of those ideas to discuss with us," Fearing says. "He has friends in the golfing community and sees the good and bad. In his mind, if you're going to have a golf club, one guy is in charge, and that's that. I listen to other members, but at the end of the day, what's going to be accomplished will come from him."

Better relationships

Lucas, who is a member of the National Golf Course Owners Association and past president of the South Carolina PGA, says the industry is experiencing changes among owners and superintendents. Various owner and superintendent associations are working together, such as inviting each other to conferences for discussions among groups.

"When golf started to decline, owners started to scrutinize the golf course operations more and saw the need for a better relationship with superintendents," he says. The main thing Fearing recommends to other superintendents who want a better



relationship with owners is to be straightforward with them.

"There are limitations on what you can and can't do," he says. "If asked to do something, don't say you can't do it because it's too hard. Most things can be done if you take the time and come up with a plan. Sometimes guys don't go through with it."

Fearing doesn't see why superintendents and owners couldn't work more closely together.

"A degree in agronomy isn't needed – owners should have a basic knowledge of what we do and what we deal with," he says. "Mr. Vickers has that." GCN



Jack Vickers, green chairman and part owner of Castle Pines Golf Club, knows the challenges Marshall Fearing, director of grounds, and his crew go through to get course conditions to where Vickers wants them. Photo: Castle Pines Golf Club

Turfgrass management

Out, damned pests

NUMEROUS WEEDS AND INSECTS PRESENT MORE OF A PROBLEM FOR SUPERINTENDENTS IN THE SOUTH THAN IN THE NORTH

by JOHN TORSIELLO

ny golf course superintendent worth his salt realizes a golf course is a miniature ecosystem that presents unique maintenance challenges. Perhaps in no other area of course management is this more evident than with herbicide and insecticide programs. While some superintendents might only have to worry about a few dandelions and some crabgrass, others must constantly arm themselves against an array of weeds and pests, ranging from mole crickets and fire ants to thistle and goosegrass.

The cost to wage these battles ranges significantly according to which part of the country a course is located. In the North, herbicide and insecticide programs might amount to only 10 percent of a facility's overall maintenance budget, while in some areas of the South, herbicide and insecticide programs might even be more than 50 percent of the budget. Pests and weeds vary from region to region and from golf course to golf course.

"You're dealing with microclimates and unique ecosystems that demand different management programs," says Todd Lowe, a Green Section agronomist with the U.S. Golf Association who's based in Florida. "We have golf courses in Florida that were built on old tomato fields or citrus groves that have wall-to-wall nematodes. On other courses, the problem might be on one green and a tee box."

Being completely aware of a course's ecosystem and having detailed knowledge of soil types, average weather conditions, and pests and weeds common to the area allow superintendents to prevent and manage quickly potentially damaging pests and weeds. But the best defense is always a healthy turf.

When I came here six years ago, our herbicide program was way up on the list

At Eagle Rock Golf Club in Billings, Mont golf course superintendent Lee Bestrom doesn't need to apply insecticides but sprays for weeds as needed. Photo: Eagle Rock Golf Club



of priorities," says Joe Tennyson, golf course superintendent at The Sagamore Golf Club in Bolton Landing, N.Y. "We had an extremely tough problem with weeds. We attacked it by spraying the entire course and got a handle on it. Then the challenge was keeping the turf healthy because the best defense against weeds is a tight turf canopy."

Scott Neumann, golf course superintendent at Fairview Farm Golf Course in Harwinton, Conn., concurs, saying the best way to keep a golf course disease and pest free is growing good grass.

"That means an aggressive fertilizer and fungicide program and attacking problems immediately when they appear," he says. "We call it integrated pest management. Superintendents should always conduct soil tests to determine the condition of their turf. It's like a person – you get sick and have to have some type of treatment. It's the same way with grass."

Fewer intruders

In the Northern regions of the country, growing healthy turf, spraying on an asneeded basis and remaining vigilant to control potential weed and pest problems usually suffices.

"Fortunately, in this area, we have very few insect problems," says Dave Brandenburg, golf course superintendent at Rolling Meadows Golf Club in Theresa, Wis. "We will spray for cutworms on the greens every third or fourth year and spray for grubs in the fairways occasionally. And we will put an application of herbicide down for weeds on the majority of the golf courses each spring. We'll have a little thistle in the rough areas that we spray for as needed."

Rolling Meadows, which is built on open, rolling prairie land, enjoys a climate conducive to growing strong, tight turf and keeping it that way.

"It's unusual for us to have more than three or four days in a row with temperatures in the 90s," Brandenburg says. "Generally, we have cool nights in the summer and normally have a breeze that dries the course out."

Lee Bestrom, golf course superintendent at Eagle Rock Golf Club in Billings, Mont., is fortunate as well.

"We don't use insecticides on the course because there's no need to," he says. "We'll spray a little herbicide to keep dandelions and thistle down, usually in the spring and fall, because that's a forever type of problem. We have a climate well-suited to growing strong turf. We aren't humid, even in the summer." Bestrom and his maintenance crew spray for weeds as needed, but mostly look to prevent problems.

"If you don't prevent, then you have to control," he says.

Tennyson treats the fairways at Sagamore with an insecticide annually to prevent grubs that attract skunks and crows, which can seriously damage the turf when they chase grubs in the soil.

At Fairview Farm, Neumann and his crew spray insecticides with the active ingredient imidacloprid wall-to-wall in June or July to control grubs.

"We're pretty aggressive with the greens to keep the cutworms down," he says. "Our herbicide and insecticide spraying amounts to about 10 percent of our budget. Where we're spraying and applying fungicide and fertilizer on a regular basis, we might spray once a year to control weeds and pests and then attack an area as needed."

Jonathan Burke, golf course superintendent at The Ranch Golf Club in Sheffield, Mass., sprays once or twice a year to prevent the emergence of Japanese beetle grubs, but he doesn't spray for the Bluegrass weevil. In fact, he encourages the weevil in some areas, as long as they don't chew on the bentgrass, because they can help keep *Poa annua* out of some areas.

"I'm spraying fungicide perhaps once a month or even once a week in some parts of the course," he says. "I spray herbicide to control crabgrass every other year. We'll go after postemergent crabgrass or broadleaf as needed, and in general, keep a close eye on things.

"Sometimes the members at a club care if there's a dandelion by the third tee box," he

IPM development

An integrated pest management program can be a valuable tool to help superintendents prevent and control insects, weeds and diseases. An IPM program also can reap economic and environmental benefits by reducing the amount of materials and manpower needed to maintain turf.

Six important steps when developing an IPM program are: • Site assessment;

- Monitoring;
- Setting thresholds for action;
- Stress management;
- Identification and optimization of management options; and
- Evaluation.

Source: GCN research

adds. "If you have the time and the budget to be that selective, it's great, but most golf courses don't have that luxury."

The building of American links-style golf courses recently led to hands on weed management in some

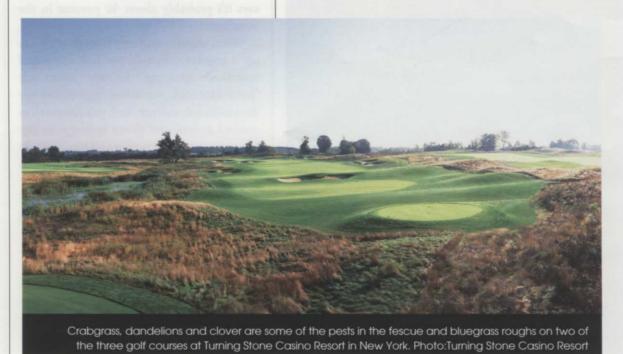


instances. "On two of our cours-

es that have fescue and bluegrass in the rough areas, we go in and spray to keep the crabgrass, dandelions and clover down during the spring," says Andy

Knappenberger

Knappenberger, superintendent of Turning Stone Casino Resort's three 18-hole golf courses in Oneida, N.Y. "Later in the



turfgrass management

season, we don't do much about it, but we will go in and hand-pull some of then larger plants like milkweed. We don't want them crowding out the grasses."

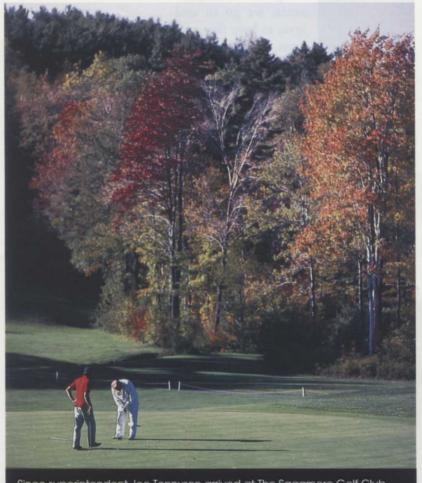
A bigger battle

In the Southeast region of the country, weed and insect management on golf courses is much different.

"We have a broad spectrum of pests in the Florida market," Lowe says. "Mole crickets and nematodes are our number one pest, but we have had some wonderful, very specific products come down the pike the last few years [that have the active ingredient fipronil], which [are] wonderful on mole crickets and gives us a good six months of suppression.

"Interestingly, we're seeing pests that weren't pests 20 years ago," Lowe adds. "The common earthworm, which throws castings onto the turf and can gunk up mowers, is one. You're even seeing the problem pop up in the Northwest where the climate is conducive to their multiplying."

Because of the mild climate and constant growing season, superintendents in the South and Southwest spend much more time and money managing pests and weeds than their brethren in the North and Midwest.



Since superintendent Joe Tennyson arrived at The Sagamore Golf Club, weeds have become less of a problem. Photo: The Sagamore Golf Club



Jonathan Burke, superintendent at The Ranch Golt Club, encourages weevil in some areas because they can help keep *Poa annua* out of areas. Photo: The Ranch Golf Club

"We're treating almost year-round for some weeds," Lowe says. "We might do three or four applications to attack *Poa annua* and goosegrass in the pre-emergent stages. If it breaks out, then you attack it as needed. The *Poa annua* seeds can sit there dormant for up to 15 years ready to go. It all goes back to the budget of the club, and some clubs have members that have higher standards for their course than others."

In some areas of the South, a herbicide and insecticide program might be as much as 60 percent of a superintendent's total material and manpower budget, according to Bud White, USGA senior agronomist in the mid-continent region of the United States that includes Texas, Oklahoma, Louisiana, Arkansas and New Mexico. Brown says it's probably about 40 percent in the Southeast.

"Most superintendents I work with are on a regular schedule for herbicide and insecticide spraying," he says "Many use [pesticides with the active ingredients trifloxysulfuron sodium and prodiamine] to control sedges and green kyllinga in the fairways, roughs and green and tee slopes. In January, they'll touch up with an application of Roundup (active ingredient glyphosate). By doing this, it isn't such an astronomical cost than if you're going out in the spring and summer with postemergent applications. That can be very costly in material and manpower."

In some areas of the Southeast and Southwest, fire ants are a big concern for superintendents. Fire ants are working their way up the coast in the East and into the southern parts of the West Coast, White says. "In the Midwest, it's been a rapid spread," he says. "Superintendents are very aggressive with them because a bite to an allergic person can send him or her to the hospital. Some of the [pesticides with the active ingredient fipronil] work well to control the ants."

Rotating weapons

Many industry experts consider it wise for superintendents to rotate their chemicals when treating for pests and weeds. Studies have shown insects and weeds can build resistance to certain products. Some experts say one should use five or six different chemicals, and others say one should wait to see if a pest or weed develops a resistance and then change, according to Neumann.

"We rotate our mixes," Brandenburg says. "One reason is because different chemicals work differently on weeds and fungi. There has been proof of some resistance to the same chemical, so it's a good idea to rotate mixes."

"You rotate your chemistry for several reasons, the most important of which is to guard against resistance," Lowe says. "You don't want to spray for pests using a chemical they have become resistant to. That could lead to outbreaks."

Superintendents say they'll mix herbicides and insecticides with fungicides and fertilizers whenever possible to eliminate the need for separate spraying, saving time and manpower cost. GCN

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Course operations

Still a challenge

JUST LIKE THE LARGER ONES, NINE-HOLE FACILITIES STRUGGLE TO MAINTAIN BUSINESS AND INCREASE THE NUMBER OF ROUNDS

by ' JOHN

s short good in golf? When it comes to hitting your driver it's not. But what about course length and the time it WALSH takes to play a round?

One of the reasons for the trend of declining rounds in various markets throughout the country is that many people don't want to spend the hours needed to play the game.

"It's hard to devote five hours to something," says Peter Grass, CGCS, of the ninehole Hilands Golf Club in Billings, Mont.

This might lead one to think nine-hole golf courses would have an advantage over larger facilities because of the perception they take less time to play (even though one could play nine holes at an 18-hole or larger facility). However, they're having just as much difficulty maintaining business and increasing the number of rounds generated.

Course characteristics

Hilands is a bit different from other courses because it doesn't depend on a certain number of rounds, Grass says.

"We're private and don't operate on cash," he says. "If we depended just on the cash register, we wouldn't have the conditions we do. Our niche is upper end. Rounds aren't essential to us. Play in our area is down a bit, but we're holding our own."

The 275-member club features a course that isn't stereotypical, according to Grass, who has been at Hilands for 30 years. The town was built up around the 80-year old course, so there's no room to expand. And because the course is located three or four minutes from downtown it's convenient for many golfers.

"But it's never so packed that you can't just show up and play within 15 minutes," Grass says. "There's not a lot of guest play."

The club's membership lost 30 members three years ago, and the golf course maintenance budget was tight, according to Grass, whose maintenance budget including labor is \$220,000 this year. The initiation fee was \$7,500 before it was lowered to \$2,500 to generate interest. Thanks to renewed interest, the initiation fee climbed to \$4,000. Annual dues are \$2,200.

"Being private is more comforting," he says. "The best benefit of being a private course is control over the rules and being able to educate members better and teach proper etiquette. People in this area are more



er during the week than the weekend. Photo: Bernie Bak

course operations



Geneva Golf Club is undergoing a \$1.8-million capital improvement project that includes bunker and tee renovation. Photo: Geneva Golf Club.

relaxed and aren't so quick on the trigger to fire someone at the sight of a problem on the golf course."

The 106-year-old Geneva Golf Club in Illinois also is landlocked. The private ninehole facility 40 miles west of Chicago sits on 40 acres of land. The 165-member club – 90 of which have equity in it – has been stable, according to Ed Braunsky, CGCS, who has been at Geneva 26 years. The course generates between 7,000 and 8,000 rounds annually. In 2004, the course generated 6,700 rounds, and in 2005 generated almost 7,000. Braunsky, who has a maintenance budget of \$193,000 and a capital expenditure budget of \$35,000, says time constraint is an issue with many golfers.

"Time is money," he says. "We're right

includes renovating bunkers and tees, which is estimated to cost \$300,000. Golf course architect David Esler is trying to return to old-style bunkering with jagged edges, Braunsky says. Also, fescue moundings will be installed to get a away from the runway look.

"Primarily, golfers feel a course has to be 18 holes, and that's why the renovation is important," Braunsky says. "We hadn't done bunkers since the late 1980s."

After the renovation, the 2,900-yard course will be a par 34 with a slope rating of 132.

In addition to the bunkers and tees, the clubhouse and the pool will be renovated. The pool renovation is estimated to cost between \$700,000 and \$800,000.

"We're private and don't operate on cash. If we depended just on the cash register, we wouldn't have the conditions we do." – PETER GRASS, CGCS

near the metro station, so golfers can get the train home and squeeze in a round of golf."

Like Grass, Braunsky says being private has it advantages.

"Members can come tee it up and go," he says. "There are no tee times, and we don't have a waiting issue or have log jams. The members know who plays when."

Currently, Geneva is undergoing a \$1.8million capital improvement project that Another landlocked, nine-hole course that's trying to differentiate itself in a competitive market is the public Downers Grove Golf Club in Illinois. Built in 1892, Downers Grove was the original Chicago Golf Club, which moved to Wheaton, Ill., in 1899. Rounds and revenue have declined at Downers Grove since 2001, according to golf course superintendent Jeff Pozen. Net revenue declined from \$300,000 in 2001 to \$110,000 last year. Gross revenue declined a bit from \$1.1 million in 2002-03 to \$1 million last year. The course was generating 50,000 rounds in 1998, and now is generating 46,000 rounds. However, the maintenance budget hasn't been cut too much, according to Pozen.

Yet Downers Grove isn't generating more rounds because of its size, unfortunately, Pozen says. Through mid-July, rounds declined 4 percent year over year, which is equivalent to 1,000 rounds, but the driving range business has increased 3 percent, according to Vann Bennett, golf course manager, who has been there for 4.5 years. Bennett says the performance of Downers Grove is in step with the trend that people don't or aren't willing to devote 2.5 hours or more to a round of golf.

Despite the decline of the number of rounds, Downers Grove generates steady business during the week.

"People like to play 18 holes on the weekends," says Pozen, whose staff consists of two full-time workers and six seasonal workers. "Here, it's a different mentality. We get more business during the week – Monday through Thursday – compared to the weekend. We generate more rounds than others during the week."

What's your condition?

Market conditions vary throughout the country, but they all have an effect on each golf facility. Grass says there's a lot of golf available in the greater Billings area – not a glut, but plenty of holes. He says Hilands is the only nine-hole course in the vicinity. Other courses in the area are: an 18-hole, par-3 city-owned course; three 18-hole